



8EHQ-98-14201

Shell Chemical Company



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Contains No CBI 8EHQ - 0698 - 14201

June 3, 1998

Document Processing Center (TS-790)
Office of Toxic Substances
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460
ATTN: 8(e) Coordinator



88980000168

Dear Sir:

SUBJECT: NEUROBEHAVIORAL CHANGES IN HUMANS EXPOSED TO WHITE SPIRIT

The following information is submitted under TSCA 8(e), since it may constitute substantial health risk information not previously known to the Administrator.

Small but significant declines in motor performance were reported in a study of human volunteers exposed to 100 ppm white spirit for 4 hours. Motor performance was measured by finger tapping, reaction time, and color word vigilance tests. The study was performed by the Netherlands Organization for Applied Scientific Research (TNO) and sponsored in part by CEFIC. The objective of the study was primarily to evaluate the sensitivity of the test methods to occupationally relevant hydrocarbon solvent exposure.

Shell Chemical Co. became aware of the information during a routine review of the toxicology of hydrocarbon solvents; the information reported here was taken from a communication with European Shell toxicologists involved in a technical review of the TNO study report. A copy of the TNO study is not presently available. Although Shell Chemical Co. does not manufacture a product designated as white spirit or Stoddard solvent, Shell does produce Shell Mineral Spirits 135, a product chemically similar to white spirit.

Since neurobehavioral effects were reported in humans at a 4-hr exposure level (100 ppm) which was lower than the OSHA PEL (500 ppm) or ACGIH 8-hr TLV/TWA (100 ppm) occupational exposure limits, possible implications for the safety of Shell workers potentially exposed to similar Shell products is under review. If it is determined that current hazard communication warnings are inadequate, MSDS's will be revised accordingly. Shell currently provides MSDS warnings for CNS effects from exposure to solvent vapors.

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This report has been compiled based on information available as of the date of filing. The corporation, its agents and employees reserve the right to supplement the data contained in this report, and to revise and amend any conclusions drawn therefrom.

This report contains no confidential business information.

The following person should be contacted if you have questions or a need for discussion.

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Very truly yours,



R. N. Shulman, Vice President
Health, Safety, and Environment
Shell Chemical Company and Shell Oil Products Company

THG/sjh